

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Compleat if Known

| | |
|------------------------|-----------------------|
| Application Number | 10/001,407 |
| Filing Date | October 22, 2001 |
| First Named Inventor | YANG et al. |
| Group Art Unit | To Be Assigned 1648 |
| Examiner Name | To Be Assigned PARLON |
| Attorney Docket Number | GP117-03.UT |

Sheet 3 of 4

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

* An English language abstract is included. ** An English language abstract and English language claims are included.

| | | | |
|-----------------------|---|--------------------|------------|
| Examiner Signature |  | Date Considered | 03/10/2024 |
|-----------------------|---|--------------------|------------|

*EXAMINER: Initial reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

NC - reference not considered. SDS fail to comply with 37 CFR 1.98(a)(2).

FEB 14 2002

RECEIVED

+

Approved for use through 10/31/2002. OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

| | |
|-------------------------------|-------------------------|
| Application Number | 10/001,407 |
| Filing Date | October 22, 2001 |
| First Named Inventor | YANG t al. |
| Group Art Unit | 1648 |
| Examiner Name | Parkin, J. |
| Attorney Docket Number | GP117-03 UT |

(use as many sheets as necessary)

| | | | |
|-------|---|----|---|
| Sheet | 1 | of | 1 |
|-------|---|----|---|

Attorney Docket Number **GP117-03.UT**

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

[illegible]

**Examiner
Signature**

| | |
|-----------------|----------|
| Date Considered | 03/10/04 |
|-----------------|----------|

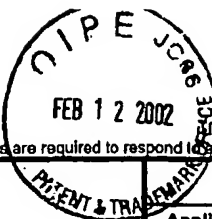
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

+



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | |
|---|---|------------------------|-----------------------|
| Substitute for form 1449B/PTO | | Compleat If Kn wn | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Application Number | 10/001,407 |
| | | Filing Date | Oct ber 22, 2001 |
| | | First Named Inventor | YANG et al. |
| | | Group Art Unit | To Be Assigned 1678 |
| | | Examiner Name | To Be Assigned PARKER |
| Sheet | 4 | of | 4 |
| | | Attorney Docket Number | GP117-03.UT |

| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | |
|---|-----------------------|---|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| NC | | ABRAVAYA et al., "Performance of a Multiplex Qualitative PCR LCx Assay for Detection of Human Immunodeficiency Virus Type 1 (HIV-1) Group M Subtypes, Group O, and HIV-2", J. Clin. Microbiol., Feb. 2000, 38(2):716-23, American Society for Microbiology, US |
| | | DIAMOND et al., "Highly Sensitive Method for Amplification of Human Immunodeficiency Virus Type 2 DNA", J. Clin. Microbiol., March 1998, 36(3):809-811, American Society for Microbiology, US |
| | | REEVES et al., "Primary Human Immunodeficiency Virus Type 2 (HIV-2) Isolates Infect CD4-Negative Cells via CCR5 and CXCR4: Comparison with HIV-1 and Simian Immunodeficiency Virus and Relevance to Cell Tropism In Vivo", J. Virol., Sept. 1999, 73(9):7795-804, American Society for Microbiology, US |
| | | WALTHER-JALLOW et al., "High Concordance between Polymerase Chain Reaction and Antibody Testing of Specimens from Individuals Dually Infected with HIV Types 1 and 2 In Guinea-Bissau, West Africa", AIDS Res. Hum. Retroviruses, July 1999, 15(11):957-62, Mary Ann Liebert Incorporated, US |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
| | 03/10/04 |

*EXAMINER: Initial reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

NC - References not considered. IDS fail to comply with 37 CFR 1.98(c)(2).

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0851-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 4

Complete if Known

Application Number 10/001,407
Filing Date October 22, 2001
First Named Inventor YANG et al.
Group Art Unit To Be Assigned 1648
Examiner Name To Be Assigned. PARICEN
Attorney Docket Number GP117-03.UT

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No.† | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|-----------------------|--------------|----------------------|--------------------------|--|--|--|
| | | Number | Kind Code² (if known) | | | |
| NC | | 4868105 | A | Urdea et al. | 09-19-1989 | |
| | | 4965188 | A | Mullis et al. | 11-23-1990 | |
| | | 5008182 | A | Sninsky et al. | 04-16-1991 | |
| | | 5066782 | A | Montagnier et al. | 11-19-1991 | |
| | | 5124246 | A | Urdea et al. | 06-23-1992 | |
| | | 5130238 | A | Malek et al. | 07-14-1992 | |
| | | 5176995 | A | Sninsky et al. | 01-05-1993 | |
| | | 5223423 | A | Franchini et al. | 06-29-1993 | |
| | | 5283174 | A | Arnold, Jr. et al. | 02-01-1994 | |
| | | 5310651 | A | Alizon et al. | 05-10-1994 | |
| | | 5399491 | A | Kacian et al. | 03-21-1995 | |
| | | 5437990 | A | Burg et al. | 08-01-1995 | |
| | | 5455166 | A | Walker | 10-03-1995 | |
| | | 5470572 | A | Kraiselburd | 11-28-1995 | |
| | | 5472840 | A | Stefano | 12-05-1995 | |
| | | 5545726 | A | Alizon et al. | 08-13-1996 | |
| | | 5554516 | A | Kacian et al. | 09-10-1996 | |
| | | 5591578 | A | Meade et al. | 01-07-1997 | |
| | | 5639604 | A | Arnold, Jr. et al. | 06-17-1997 | |
| | | 5656207 | A | Woodhead et al. | 08-12-1997 | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No.† | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T6 |
|-----------------------|--------------|-------------------------|---------|--------------------------|--|--|--|----|
| | | Office³ | Number⁴ | Kind Code⁵ (if known) | | | | |
| NC | | EP | 0239425 | A1 | Institut Pasteur | 09-30-1997 | | * |
| | | EP | 0403333 | B1 | Institut Pasteur et al. | 12-19-1990 | | ** |
| | | EP | 0404625 | B1 | Institut Pasteur et al. | 12-27-1990 | | ** |
| | | EP | 0525882 | A1 | Akzo N.V. | 02-03-1993 | | |
| | | EP | 0655501 | A1 | Qlagen GmbH et al. | 05-31-1995 | | |
| | | EP | 0750041 | A2 | Institut Pasteur | 12-27-1996 | | * |
| | | EP | 0806484 | A2 | Institut Pasteur et al. | 11-12-1997 | | * |
| | | EP | 0887427 | A2 | Ortho-Clinical Diagnostics, Inc. | 12-30-1998 | | |
| | | EP | 1026263 | A2 | Ortho-Clinical Diagnostics, Inc. | 08-09-2000 | | |
| | | WO | 8801302 | A1 | Siska Diagnostics, Inc. | 02-25-1988 | | |

* An English language abstract is included. ** An English language abstract and English language claims are included.

| | |
|-----------------------|--------------------|
| Examiner Signature | Date Considered |
| | 03/10/04 |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

NC - references not considered. IDS fail to comply with
37 CFR 1.98(a)(2).

Please type a plus sign (+) inside this box

FEB 12 2002

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 4

Complete if Known

Application Number 10/001,407
Filing Date October 22, 2001
First Named Inventor YANG et al.
Group Art Unit To Be Assigned 1648
Examiner Name To Be Assigned P112121
Attorney Docket Number GP117-03.UT

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|-----------------------|--------------------------|----------------------|--------------------------------------|--|--|--|
| | | Number | Kind Code ² (if known) | | | |
| NC | | 5658737 | A | Nelson et al. | 08-19-1997 | |
| | | 5688637 | A | Moncany et al. | 11-18-1997 | |
| | | 5712385 | A | McDonough et al. | 01-27-1998 | |
| | | 5770369 | A | Meade et al. | 06-23-1998 | |
| | | 5786208 | A | Clark et al. | 07-28-1998 | |
| | | 5827935 | A | Rossi et al. | 10-27-1998 | |
| | | 5840488 | A | Hogan | 11-24-1998 | |
| | | 5840873 | A | Nelson et al. | 11-24-1998 | |
| | | 5843654 | A | Heisler et al. | 12-01-1998 | |
| | | 5843669 | A | Kaiser et al. | 12-01-1998 | |
| | | 5856088 | A | McDonough et al. | 01-05-1999 | |
| | | 5962665 | A | Kroeger et al. | 10-05-1999 | |
| | | 5976814 | A | Bard et al. | 11-02-1999 | |
| | | 5998172 | A | Haynes et al. | 12-07-1999 | |
| | | 6001558 | A | Backus et al. | 12-14-1999 | |
| | | 6020123 | A | Sonigo et al. | 02-01-2000 | |
| | | 6096321 | A | Girardeau et al. | 08-01-2000 | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
|-----------------------|--------------------------|-------------------------|---------------------|--------------------------------------|--|--|--|----------------|
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| NC | | WO | 8810315 | A1 | Siska Diagnostics, Inc. | 12-29-1988 | | |
| | | WO | 9322461 | A1 | Gen-Probe Incorporated | 11-11-1993 | | |
| | | WO | 9403472 | A1 | Gen-Probe Incorporated | 02-17-1994 | | |
| | | WO | 9414967 | A2 | Institut National De La Recherche Agronomique | 07-07-1994 | | * |
| | | WO | 9503430 | A1 | Gen-Probe Incorporated | 02-02-1995 | | |
| | | WO | 9532305 | A1 | Dako A/S | 11-30-1995 | | |
| | | WO | 9850583 | A1 | Gen-Probe Incorporated | 11-12-1998 | | |
| | | WO | 9855640 | A1 | Oxford Biomedica (UK) Limited | 12-10-1998 | | |
| | | WO | 0001850 | A2 | Gen-Probe Incorporated | 01-13-2000 | | |
| | | WO | 0125419 | A1 | Cyto-Genix, Inc. | 04-12-2001 | | |

* An English language abstract is included. ** An English language abstract and English language claims are included.

Examiner
Signature

Date

Considered

03/18/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

NC - Reference not considered. IDS fails to comply with
37 CFR 1.98(a)(2).